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Massachusetts
Technology
Development
Corporation



Annual Report 1988



### **MTDC** Overview

Massachusetts has a long tradition of leadership in the application of technology to solve basic problems, meet human needs, and advance the commercial success of new enterprises. In part, this history has been a result of the Commonwealth's need to provide premium-priced products for export to other parts of the nation and the world to offset the high cost of importing the basic resources of food and energy. The tradition has long been institutionalized through the large number of public and private universities, the strong system of public schools, and the financial institutions that have supported these activities.

The fundamental prerequisites of a strong technology-based economy are technological talent, entrepreneurial leadership and financial resources that encourage research and development and patiently nurture new industries. The government of the Commonwealth has taken a leadership role over the years in providing support for these basic needs.

#### **MTDC** History

In 1978 the Governor and the Legislature enacted a law creating the Massachusetts Technology Development Corporation as one of several economic development initiatives. MTDC was established to address the then existing "capital gap" for expansion of early-stage technology companies.

By the time MTDC commenced operation, the substantial reduction

in the federal capital gains tax in 1978 and increased investment in venture capital by pension funds helped to stimulate a significant increase in venture capital funds. As private venture capital flourished in the early 1980s, MTDC focused more of its investment activity on start-up companies where the "capital gap" continued to exist. MTDC established policies and practices to complement, not to compete with, private financial institutions. As a result, MTDC has been able to leverage between \$3 and \$5 of private co-investment for every \$1 of its investment in earlystage technology companies based in Massachusetts.

As the climate for venture capital investment in technology companies has changed in the late 1980s, MTDC has had to respond increasingly to the financing needs of small, existing Massachusetts technology companies that are seeking to expand. In addition, MTDC has made efforts to continue to diversify its investments among industries and geographic areas of the Commonwealth.

In 1986 MTDC began investing \$2,000,000 of the Massachusetts Pension Reserves Investment Trust (PRIT) under a management agreement with the Pension Reserves Investment Management Board (PRIM). These funds are invested in companies at later-stage rounds of financing where there are opportunities for substantial capital gains to benefit the PRIT.

#### **MTDC** Objectives

Through each phase of its existence, MTDC has pursued the following four basic objectives:

- to help create primary employment in technologybased industries in Massachusetts;
- to attract and leverage private investment in Massachusetts companies;
- to foster the application of technological innovations where Massachusetts companies are, or can be, leaders;
- to nurture entrepreneurship among Massachusetts citizens, planting the seeds for long-term economic development in the State.

#### **MTDC Programs**

While MTDC's Investment Program has been its most visible activity, the Management Assistance Program has been quietly helping entrepreneurs to launch or expand their businesses. Through the Management Assistance Program, MTDC's staff reviews initial business plans and provides counsel as to the most feasible ways of raising necessary capital from private and/or public sources, and assists companies in locating these alternative sources of funding without making an investment itself.

### MTDC Board of Directors and Staff

#### **Board of Directors**

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President
Kurzweil Computer Products, Inc.

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DR. HORACE W. FURUMOTO President Candela Laser Corporation

JOSEPH S. IANDIORIO, ESQUIRE Patent Counsel

HONORABLE FRANK T. KEEFE Secretary of Administration and Finance

MARY E. MAKELA President Cognos Corporation

TIMOTHY J. McNEILL McNeill Associates

RON E. PAYNE Corporate Purchasing Vice President Digital Equipment Corporation

DR. ALDEN S. RAINE Director, Governor's Office of Economic Development

PHYLLIS SHERRY SWERSKY

Treasurer

Executive Vice President

Artificial Intelligence Corporation

PROFESSOR DAVID N. WORMLEY
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Head, Department of Mechanical
Engineering
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MICHAEL N. STEIN Investment Analyst

KAREN L. BUTTS
Controller

ESTHER E. LARSON Office Manager

GAIL M. CORMIER

Administrative Assistant

MARIE B. PHANEUF
Public Information Officer

RUTH L. ROBER Secretary

## Report of the Chairman and President

The Massachusetts Technology Development Corporation completed its ninth year of investment operations on June 30, 1988 as an instrument for economic development based upon a public/private partnership. Among the major accomplishments during fiscal year 1988 were:

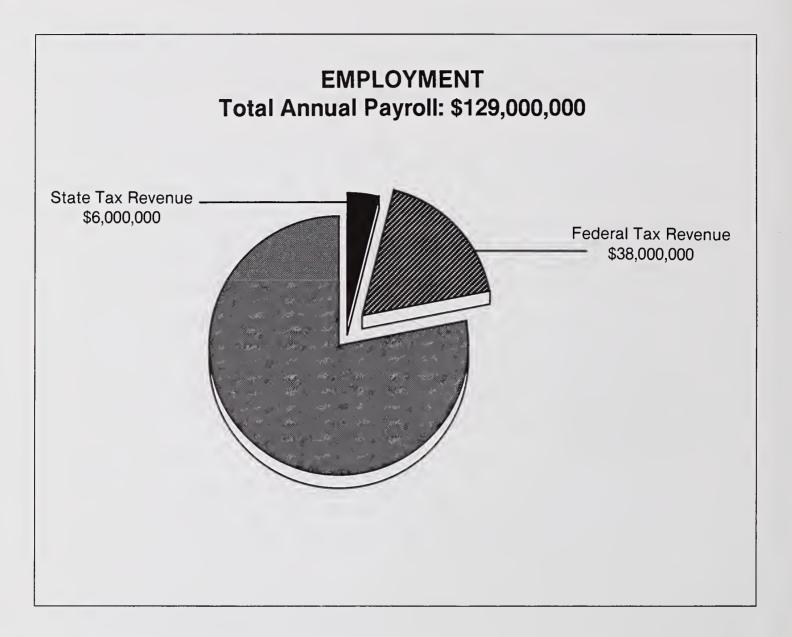
- MTDC closed investments in seven new companies which it added to its portfolio. These companies are described in the section of this report entitled *Investments*.
- By the end of Fiscal '88, MTDC had invested a cumulative total of \$11,900,000, which initially leveraged over \$49,700,000 of private coinvestment and bank financing; and there were over 2,300 new jobs created among the active companies in which MTDC had invested.
- MTDC realized gains in Fiscal '88 of \$720,700 on equity investments.
  Realized losses on other equity investments were \$75,000. The
  cumulative realized gains on equity investments since 1980 total
  \$5,353,000, while cumulative losses on both debt and equity
  investments total \$1,269,000, for net gains of \$4,084,000. Of these
  gains, over \$3,700,000 have been allocated to fund future MTDC
  investments.
- Finally, MTDC made a disbursement of \$750,000 to the Commonwealth of Massachusetts in full satisfaction of any and all past obligations to reimburse the Commonwealth for operating funds that had been appropriated for MTDC and its predecessor organization, Massachusetts Science and Technology Foundation.

In other sections of this Annual Report the reader will find descriptions of the corporate objectives, the FY88 investments, the economic benefits of MTDC's activities, and the audited financial statements for Fiscal '88. This has been a very satisfying year for MTDC in its progress as a unique economic development organization of the Commonwealth.

Howard N. Smith Chairman

> John F. Hodgman President

### **Economic Benefits**

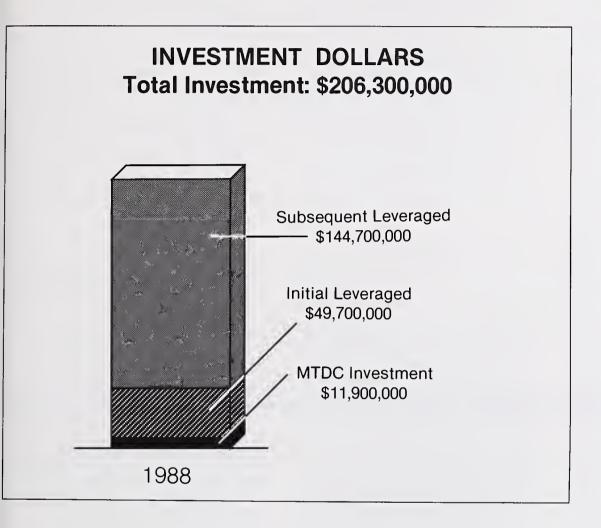


MTDC's primary objective has been to help create employment in Massachusetts, both within the companies it helps to finance and among the firms that provide products or services to these companies. The emerging technology companies that MTDC assists create new employment to offset declines in mature industries and older technology companies. In addition, these jobs generate tax revenue that is important

to finance both federal and state expenditures.

At the end of FY88, the 42 active companies in which MTDC had invested since 1978 directly employed over 3,400 people. The estimated total annual payroll of these companies exceeded \$129 million, which generated an estimated total annual tax revenue of over \$38 million to the federal government and over \$6 million to the State.

The majority of the companies in MTDC's portfolio sell their products to markets outside of Massachusetts, both to domestic and foreign customers. All of the portfolio companies purchase some products and services from other companies within the Commonwealth. As a result, many other Massachusetts firms have increased or maintained jobs by virtue of the business they do with MTDC portfolio companies.



MTDC seeks to leverage private investment in Massachusetts companies.

At the end of FY88, MTDC had invested a total of \$11.9 million, which leveraged over \$49.7 million of private investment at the initial phase of financing. Subsequent rounds of financing in MTDC portfolio companies brought the cumulative private dollars invested to \$194,400,000, representing a leverage factor of \$16.34 for every \$1 of MTDC investment.

#### **Innovation**

MTDC has the opportunity to foster innovation by investing in companies whose products and services are new and often at the early stages of market development. In some instances, the innovations provided by these companies have helped to create new industries.

At the end of FY88, MTDC had helped to launch innovative applications of technology in such areas as: high resolution film display of three-dimensional design objects, import/export software, millimeter wave devices components and systems, group bridging telephone switching systems, computer-based college matching, HPLC instrumentation, and advanced voice messaging equipment.

#### Entrepreneurship

MTDC works in conjunction with local institutions to nurture entrepreneurship among technologists attempting to transfer research and development in laboratories to commercial, market-driven applications.

Since 1980 MTDC has provided management assistance to more than 385 companies by critiquing business plans and referring them to potential private venture capital sources.
MTDC has also arranged for entrepreneurs to present their ventures at the MIT Enterprise Forum and Start-Up Clinic.
Many of these companies were ultimately financed by private sources without any investment by MTDC.

### **MTDC's Current Portfolio by Industry**

Computer Software and Services	18%	Medical Instruments	8%
	400/	Fiber Optics	5%
Computer Equipment and Peripherals	16%	Telecommunications	11%
Factory Automation Equipment and Systems	26%	Miscellaneous	16%

### **Investments**

## College Counsel Natick

In May 1988 MTDC made a \$250,000 equity investment in COLLEGE COUNSEL. Co-investing were Eliot Bank, Corning Capital and individual private investors.

Founded in 1983, this information services company has proprietary databases on all accredited colleges and universities in the United States, as well as 155,000 possible scholarships, grants and work study programs. COLLEGE COUNSEL provides highly-personalized college and scholarship portfolios for college-bound students and their parents that answer the questions: "Which college is best for me, and how can I pay for it?"

Sophisticated computers are linked through communications networks to client schools to provide

constantly updated information on the most applicable colleges to match the student's academic and personal preference profile.

The company's services are provided through various distribution channels: direct mail, schools, banks, publishers, corporations, financial planners, brokerage houses and industry associations. COLLEGE COUNSEL has already processed more than 11,000 personalized college portfolios.

#### Graftel Systems, Inc. (formerly Data Innovations, Inc.) Wilmington

In January 1988 MTDC invested \$250,000 of equity funds in Data Innovations, Inc. (DI). Co-investing were Zero Stage Capital, First Stage Capital and Etos Investments. Data Innovations manufactured a digital film recording system that is able to capture 16.7 million colors simultaneously off a highend scientific or engineering workstation with CAD/CAE applications, and project them with 3-D realism onto slides, 35mm film or overhead transparencies.

The end user for the Modelviewer Film Recording System is the mechanical engineer, product designer, scientist or architect who needs the realism of 3-D to convey a pictorial message.

In pursuit of additional distribution avenues, DI's President began talks in early 1988 with Graftel Holdings Limited, an Irish company with an established European distribution channel and complementary video processor technology for color hardcopy output to a color paper printer. In April 1988 the two companies were combined as a

Massachusetts corporation with a wholly-owned Irish subsidiary.

The new company, Graftel Systems, Inc., designs, manufactures and markets a full line of video processors and digital cameras that generate color hardcopy on any paper printer and film from any type of computer graphics platform, workstation or terminal.

## IMC Systems Group, Inc. Waltham

In September 1987 MTDC made a \$125,000 equity investment in IMC Systems Group, Inc. (IMC), a start-up founded in 1985 to market off-the-shelf software packages to international departments of medium- to large-size corporations. MTDC was joined in this first stage of a proposed two-stage financing by Zero Stage Capital and the company's three founders.

Importing and exporting merchandise are complex, time consuming, paper intensive processes that are subject to both U.S. and foreign government regulations. IMC's objective is to expedite such international transactions by minimizing the traditional volume of paperwork involved.

The IMC Systems Series presently includes *Import*, *Drawback* and *Consolidator* packages. Each can work alone or as part of an integrated trade system. These modules automate all aspects of completing and monitoring import transactions, including purchase orders, bank letters of credit, relevant shipping information and freight expenses, and U.S. Customs duties. To date, 30 systems are installed and

operating throughout the United States and the Far East.

An *Export* package is under development and scheduled for delivery early in 1989. With the introduction of *Export*, IMC will be the first company to provide a comprehensive, fully-integrated international trade system. The system is designed to run on IBM or IBM-compatible personal computers.

## Laser Engineering, Inc. Milford

In March 1988 MTDC made a second debt investment of \$100,000 in Laser Engineering, Inc. (LEI), having previously invested \$125,000 in March 1983. MTDC was joined in both rounds of financing by Bermuda Fire and Marine Insurance Company.

Founded in 1981, LEI has become the leading manufacturer of sealed-off carbon dioxide ( $\rm CO_2$ ) lasers with power output in excess of 25 watts, and is the only company that has built and sold sealed-off  $\rm CO_2$  lasers with power output of up to 100 watts.

Most competitive CO<sub>2</sub> lasers are flowing-gas models requiring a high-pressure gas tank, gas regulator, gas lines, valves, gauges and a vacuum pump. LEI's lasers require no external source of gas on a continuing basis, and are quiet, compact, reliable, less subject to mechanical problems, and comparatively economical to operate. LEI has placed more than 350 of these lasers or laser systems for medical, industrial, scientific and military applications where they are extremely competitive.

Laser Engineering also has in the prototype stage a sealed-off carbon monoxide (CO) laser system for the hospital market, which, because it operates at half the wavelength of a

CO<sub>2</sub> laser, delivers four times the power density to tissue.

#### Millitech Corporation South Deerfield

In June 1988 MTDC made a \$250,000 subordinated debt investment in Millitech Corporation. MTDC welcomed Advanced Technology Ventures, Raytheon Ventures and Prince Ventures as coinvestors.

Founded in 1982, the company manufactures and sells components and subsystems that transmit and receive information in the millimeter and submillimeter regions of the electromagnetic spectrum.

The ability to transmit and receive information in these regions gives Millitech's products distinct advantages over transmissions which use other parts of the electromagnetic spectrum: extremely accurate, camera-like images are produced with millimeter array sensors; transmission and reception in bad weather and/or poor visibility conditions are improved; a greater amount of information can be transmitted at millimeter wave frequencies; and these frequencies are resistant to jamming and interception of transmissions, thus providing more secure communications. Millimeter wave sensors are also useful for a variety of commercial applications such as moisture detection and dielectric measurements.

Since millimeter and submillimeter waves are used mainly for defense-related radar, communications, and guidance and surveillance systems, the company's primary customers are government agencies. In particular, Millitech has major contracts with

### **Investments**

NASA to develop and build high-frequency receiving instruments which monitor ozone and chlorine monoxide levels critical to NASA's ongoing study of ozone depletion in the upper atmosphere.

## MultiLink Incorporated Lynn

MTDC completed a total equity investment of \$450,000 in MultiLink Incorporated. This investment was made in two rounds of financing, the first in September 1987 for \$250,000 and the second in March 1988. MTDC was joined in both rounds by Arthur D. Little Enterprises.

Founded in 1984, MultiLink manufactures and sells the hardware used for teleconferencing and group bridging applications. MultiLink's hardware is unique because of its high audio quality and feature flexibility. It is offered in three system configurations: the Linx TCX 52, capable of connecting up to 50 lines; the MiniLinx, capable of connecting up to 26 lines; and the MicroLinx, capable of connecting up to 14 lines.

In addition to manufacturing teleconferencing hardware, MultiLink also provides The Electronic Meeting Service utilizing its own equipment. The company's customers in business, government and education use this teleconferencing service for training, marketing and meetings.

## **SpectroVision, Inc.** Chelmsford

MTDC completed a total equity investment of \$250,000 in

SpectroVision, Inc. (SV). This investment was made in two rounds of financing, the first in September 1987 for \$150,000 and the second in March 1988. MTDC was joined in both rounds by Advanced Technology Ventures.

Founded in 1986, SV designs, manufactures and sells High Performance Liquid Chromatography (HPLC) analytical instruments that detect and measure various chemical compounds in a multicomponent mixture.

SpectroVision currently sells four fluorescence detectors that measure the fluorescence given off by a molecule as it goes from an excited state (via electromagnetic radiation of a Xenon Flash) to relaxation. The energy emitted from a particular molecule is collected and measured by a photomultiplier tube and later outputted onto a conventional chart recorder.

For those molecules which do not fluoresce but do absorb light, SpectroVision has introduced its new variable wavelength absorbance detector. However, the most innovative result of the company's intense research and development efforts is a dual detector that combines both detection methodologies into one instrument.

End users for SV's detectors include researchers, inspectors and industrial quality control technicians in universities, pharmaceutical and foodstuff firms, hospitals and government agencies. Continued emphasis is being placed on the emerging applications in biotechnology and those disciplines relating to environmental issues.

#### Voicetek Corporation Newton

In December 1987 MTDC made a \$200,000 equity investment in Voicetek Corporation (VTK) from the \$2 million of Massachusetts Pension Reserves Investment Trust (PRIT) funds which MTDC manages for the Pension Reserves Investment Management Board (PRIM). Coinvesting were Kearsarge Ventures, Corning Capital and U.S. Trust Capital.

Founded in 1983, the firm manufactures a family of voice computers and software utilities to support applications development. VTK's voice computers are interactive, programmable voice processing devices that allow information to be sent and accessed from any touch-tone phone in the world. By touching buttons on a touch-tone telephone keypad, the caller interacts with a remote computer that imparts information to the caller in a natural voice mode rather than the usual CRT screen delivery.

The Telephone Information Access (TIA) market has two segments: information services is defined as the simple delivery of information and includes audiotex, enhanced network services (976, 800, etc.), time, weather, talking vellow pages, etc.; transaction processing is defined as the manipulation of information ultimately causing funds to be transferred, and includes telemarketing and financial services. Voice computers currently being installed in large banking institutions will be used to handle account inquiries and general information on bank rates and services.

## **MTDC Publicly-Traded Companies**

Name	IPO Date	Initial Invest- ment Date	Exchange	Product Description
Spire	12/83	11/79	OTC	Alternative Energy — Photovoltaics
DISCOM	7/84	1/80	OTC	Video Display Deflection Yokes
Vitronics	10/84	5/83	OTC	Infra-red Technology
Pacer Systems	7/85	6/81	British Unlisted Securities Market	Avionics
Cambridge Analytical	4/86	3/85	OTC	Hazardous & Toxic Waste Analysis
Interleaf	6/86	8/82	OTC	Electronic Publishing Software
Xylogics	3/87	4/80	OTC	Computer Disc Controllers

The above schedule describes each company in which MTDC has made an investment and which subsequently undertook an initial public offering of its securities.

One of the traditional ways in which venture capital investors realize a return on their investments is through the registration and sale of a portfolio company's stock in a public securities market. By the end of FY88, seven of the companies in which MTDC had invested had "gone public."

In three companies — Spire, Pacer and Xylogics — MTDC had sold its entire interest, resulting in net gains of \$775,727. In the case of Interleaf, Vitronics and Cambridge Analytical, MTDC had sold a portion of its interest, resulting in net gains of \$3,565,519. The balance of publicly-traded securities that are still held by MTDC will be liquidated when: 1) the provisions of SEC regulations and contractual obligations permit their sale, 2) the value of the securities will yield an optimal gain, and 3) MTDC requires liquidity to meet operating and new investment fund needs.

The value of MTDC's holdings in publicly-traded securities fluctuates with the value of each company's stock in the public market. As of June 30, 1988, the total value of these securities, based upon the market bid price at that date, was \$824,434. In accordance with MTDC's accounting policies, the values of these publicly-traded securities are stated at cost in the enclosed financial statements.

## How to Apply

#### What the Applicant Does:

The applicant submits a comprehensive written business plan. A well-thought-through plan reduces the need for questions and speeds the investment process, which oftentimes can be completed in eight to twelve weeks. The plan should address the following areas:

- characteristics and proprietary position of the company's products or services;
- present and future markets for those products or services;
- strategy for achieving and maintaining significant market share;
- company's financial history (if applicable) and projections, including balance sheets, profit and loss statements and cash flows:
- backgrounds, experience and financial commitments of principals and key managers;
- statement of the amount, timing and projected use of the capital required;
- statement of the projected growth in employment, or other positive economic impacts, which an MTDC investment would facilitate.

Proposals for financing should be addressed directly to the President, John F. Hodgman, at MTDC's Boston office.

#### What MTDC Does:

MTDC's professional staff negotiates with each company an investment whose terms are specifically tailored to meet the needs of the company, the interests of the co-investor and the goals of MTDC. Applications are invited not only from entrepreneurs who are principals in their own firms but also from members of the venture capital, banking, legal, auditing and academic professions who are familiar with business opportunities.

MTDC seeks to make all of its investments on a co-venture basis with compatible professional investors from the private sector. These may include venture capital firms, banks, SBICs, insurance companies, limited partnerships, informal investor networks, and individual and corporate investors with substantial net worths.

The size of MTDC's initial funding to an applicant is determined by the capital needs of the firm and the investment of the co-investor. Though investments can range up to a maximum of \$500,000, most are typically in the \$100,000 to \$250,000 range.

Investments are made as debt, equity or a combination of both. The debt portion of the financing is usually a long-term, unsecured, subordinated note with a partial moratorium on principal repayment. As a condition of providing such favorable debt financing, MTDC seeks an equity participation which is fair and reasonable when compared to the investment being made by the co-investor. Typical equity participation is through the purchase of the company's stock.

#### MTDC Procedures:

MTDC's Investment Analysts are assigned cases to review and monitor as appropriate under each of its programs. The cases are discussed at regular staff meetings, and those that qualify for investment are closely reviewed by MTDC's management for recommendation to the Board of Directors. Before an investment is approved by the Board, the management of the company will meet with Board Members, and a detailed investment report prepared by MTDC staff will be reviewed and analyzed.

No formal application is necessary, but the presentation of a written business plan is required before an in-depth review of the proposal can be undertaken. MTDC makes investments only in companies with the following characteristics:

- The company must be located in, or agree to locate in, Massachusetts.
- The company's business must be technology based, and its principal products or services must be sufficiently innovative to provide a competitive advantage.
- The business expansion which MTDC's investment would help to finance must produce a significant growth in employment.
- The company must be able to demonstrate that it has been unable to secure from conventional sources sufficient capital on affordable terms to finance its expansion.
- The company must be able to show the prospect of a high rate of return on investment.

# Deloitte Haskins+Sells

#### **Massachusetts Technology Development Corporation:**

We have audited the accompanying balance sheets of Massachusetts Technology Development Corporation as of June 30, 1988 and 1987 and the related statements of revenues, expenditures, and changes in fund balances for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of Massachusetts Technology Development Corporation as of June 30, 1988 and 1987 and its revenues, expenditures, and changes in fund balances for the years then ended, in conformity with generally accepted accounting principles.

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## **Financial Statements**

Balance	Sheets,	June	30,	1988	and	1987
<b>ASSETS</b>						

	Notes	1988	1987
GENERAL SUPPORT:			
Cash and equivalents  Interest receivable  Other receivables:		\$ 481,748 74,873	\$ 972,741 74,822
Sale of investment  Security deposit refund		53,125 5,175	1,166
Prepaid expenses and deposits  Leasehold improvements and office equipment –		10,424	14,724
at cost less accumulated depreciation and amortization of \$84,920 in 1988 and \$62,317 in 1987  Restricted cash and equivalents	2 5	45,420 758,437	58,440 758,437
Total general support	3	1,429,202	1,880,330
RESTRICTED FOR INVESTMENT PROGRAMS:	2, 3		
Cash and equivalents	3	3,623,372	4,366,290 500,000
Investments	2, 3	6,985,242	5,567,324
Total restricted		10,608,614	10,433,614
TOTAL ASSETS		<u>\$12,037,816</u>	\$12,313,944
LIABILITIES AND FUND BALANCES			
GENERAL SUPPORT: Accrued liabilities		\$ 68,360	\$ 124,250
Fund balance		1,360,842	1,756,080
Total general support		1,429,202	1,880,330
RESTRICTED FOR INVESTMENT PROGRAMS - Fund balance	3	10,608,614	10,433,614
TOTAL LIABILITIES AND FUND BALANCES		\$12,037,816	\$12,313,944

See notes to financial statements.

# Statements of Revenues, Expenditures, and Changes in Fund Balances for the Years Ended June 30, 1988 and 1987

	1988		88	1987	
	Notes	General Support	Restricted Funds	General Support	Restricted Funds
REVENUES:					
Commonwealth of Massachusetts — Appropriation		\$ 248,000		\$ 148,000	
Commonwealth of Massachusetts —	3				\$ 500,000
Grants Gains on equity investment	2	720,700		3,697,564	\$ 500,000
Interest earned	2	630,571		433,713	
Management fee income	8	60,000		60,000	
Miscellaneous	Ü	9,998		4,385	
Total revenues		1,669,269		4,343,662	500,000
EXPENDITURES —					
General support	4	814,507		812,609	
RECOGNIZED LOSSES					
ON INVESTMENTS			\$ (75,000)		(103,835)
REVERSION OF GRANT	3		(250,000)		
EXCESS (DEFICIENCY) OF REVENUES					
OVER EXPENDITURES		854,762	(325,000)	3,531,053	396,165
INTERFUND TRANSFER	5	(500,000)	500,000	(2,470,200)	2,470,200
DISTRIBUTION	1	(750,000)			
FUND BALANCES,					
BEGINNING OF YEAR		1,756,080	10,433,614	695,227	7,567,249
FUND BALANCES,					
END OF YEAR		\$1,360,842	\$10,608,614	\$1,756,080	\$10,433,614

See notes to financial statements.

#### **Notes to Financial Statements**

## 1. Organization and Operations

Massachusetts Technology Development Corporation was created as a body politic and instrumentality of the Commonwealth of Massachusetts on October 19, 1978 pursuant to Chapter 497 of the Acts of 1978. The purpose of the Corporation is to provide financial and other assistance to innovative enterprises in Massachusetts that have the potential to expand and generate new jobs and tax revenues. The Corporation is governed by a Board of Directors consisting of eleven members, eight of whom are appointed by the Governor from the private sector and three of whom are public officials.

The Corporation is successor to the Massachusetts Science and Technology Foundation (which was simultaneously dissolved) and assumed all rights, assets and liabilities of the Foundation. Appropriations from the Commonwealth have been a significant source of funding for both the Corporation and its predecessor. Certain appropriation acts imposed an obligation to reimburse the Commonwealth for amounts appropriated for operations; however, in 1972, the Massachusetts Attorney General issued an opinion that "such continued funding by the Commonwealth suggests that the Legislature is mindful that the Foundation requires state support until such time as it is able to be self-supporting." Accordingly, no liability to the Commonwealth, if any, has been included in the financial statements. Such appropriations totaled \$2,664,810 since inception. On June 29, 1988, the Corporation made a distribution to the Commonwealth of \$750,000. On July 16, 1988, the Legislature and Governor enacted legislation to accept the distribution in full satisfaction of all obligations of appropriated funds since inception.

# 2. Summary of Significant Accounting Policies

#### **Property and Equipment**

Property and equipment are stated at cost and are being depreciated on a straight-line basis over estimated useful lives ranging from three to ten years. Depreciation expense for the years ended June 30, 1988 and 1987 approximated \$22,600 and \$21,000, respectively.

#### Investments

Investments, consisting of notes receivable and investments in capital stock (Note 3), are recorded at cost. Upon the occurrence of a specific event which creates a decline in value which is determined to be other than temporary, the investment is written down and an investment loss is recognized. Interest earned is credited to the Corporation's General Support Funds. Gains on investments are credited to the Corporation's General Support Funds when realized and losses are charged against Restricted Fund Balances. Repayments of principal and proceeds from the sale of equity investments (to the extent of the cost basis) remain in funds restricted for investment programs. During the years ended June 30, 1988 and 1987, the Corporation realized gains on the sale of investments totaling \$720,700 and \$3,697,564, respectively. For the years ended June 30, 1988 and 1987, the Corporation charged \$75,000 and \$103,835, respectively, against restricted funds as losses on investments.

#### Income Taxes

The Corporation, as an instrumentality of the Commonwealth, is not required to pay federal or state income taxes.

#### 3. Investment Programs

#### Sources of Funds

The Corporation's original investment funds were provided in 1979 by a \$2,000,000 grant (including \$28,000 in start-up costs) from the Economic Development Administration (EDA), U.S. Department of Commerce. Under the grant, the Corporation makes loans from a revolving loan fund to eligible borrowers, defined as Massachusetts-based

businesses with operations involving a significant amount of technology, which are located in EDA Title IV redevelopment areas and which meet the requirements of the Corporation's enabling act.

During the year ended June 30, 1981, the Corporation was awarded a \$1,000,000 grant under the Corporations for Innovation Development (CID) program of the U.S. Department of Commerce. The grant award was for the purpose of establishing a second revolving loan fund to assist in the creation and development of small, innovative high-technology companies in Massachusetts. In addition, the Commonwealth of Massachusetts appropriated \$1,000,000 to the Corporation as matching funds for the federal grant. The Commonwealth appropriation is restricted to equity investments.

During the past several years, the Commonwealth of Massachusetts has appropriated additional amounts to augment the Corporation's investment fund. For the year ended June 30, 1987, the Corporation was appropriated \$500,000. During fiscal year 1988, the Secretary of Administration and Finance directed a \$250,000 grant reversion in order to meet other financial needs of the Commonwealth. At June 30, 1988, the cumulative amount of appropriations less the grant reversion totaled \$4,200,000.

#### Investments

During the years ended June 30, 1988 and 1987, the Corporation made loans and equity investments in aggregate amounts of \$2,063,821 and \$2,384,706, respectively. The terms of certain notes include an equity participation feature such as rights to convert to stock at a predetermined price or warrants to purchase common stock, in addition to interest due monthly at rates varying from 7% to 15% per year. Repayment of principal is generally due in monthly installments ranging from thirty-six to seventy-two months commencing six months to five years from the date of the loan. Such principal payments, however, are generally subordinated to the payment of senior debt of the borrowers.

A summary of investment activity is as follows:

	Notes Receivable	Equity Investments	Total
Investments made:			
1980 through 1986	\$ 4,705,353	\$ 3,497,069	\$ 8,202,422
1987	1,163,465	1,221,241	2,384,706
1988	704,581	1,359,240	2,063,821
Total investments	6,573,399	6,077,550	12,650,949
Less loan principal repayments and equity investment	· ·	, ,	, ,
costs recovered	(3,481,995)	(915,126)	(4,397,121)
Loss on investments:			
1983-1986	(684,665)	(405,086)	(1,089,751)
1987		(103,835)	(103,835)
1988		(75,000)	(75,000)
Investment balance, June 30, 1988	\$ 2,406,739	\$ 4,578,503	\$ 6,985,242
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As of June 30, 1988 and 1987, there were outstanding commitments for loans and capital investments totaling \$1,021,000 and \$540,600, respectively.

#### **Notes to Financial Statements**

## 4. General Support Expenditures

The Corporation's General Support Expenditures for the years ended June 30, 1988 and 1987 were as follows:

	1000	1007
	1988	1987
Personnel costs	\$ 529,398	\$ 544,699
Professional expenses	41,056	36,457
Occupancy costs.	102,270	89,497
Office services and supplies	52,881	71,526
Travel, meetings and conferences	34,295	33,996
Publications and advertising	30,054	17,615
Miscellaneous	24,553	18,819
Total expenditures	\$ 814,507	\$ 812,609

## 5. Restricted Cash - General Support

The Board of Directors voted to transfer \$500,000 and \$2,470,200 from General Support funds to Restricted for Investment Program funds for the years ended June 30, 1988 and 1987, respectively. In addition, during 1987 the Directors voted to restrict a total of \$758,437 of General Support funds for certain investment-related activities.

#### 6. Office Facility Lease

The Corporation has a lease commitment for office space extending through April 1993. The agreement provides for base rent plus operating expenses and tax escalation clauses. Minimum base rental commitments under this agreement are: 1989, \$100,400; 1990, \$100,400; 1991, \$102,400; 1992, \$112,400; and 1993, \$112,400. Rent expense for the years ended June 30, 1988 and 1987 approximated \$95,400 and \$81,000, respectively.

#### 7. Pension Plan

The Corporation has a defined contribution pension plan covering substantially all employees. Terms of the plan require the Corporation to make minimum annual contributions of 10% of salaries. Contributions charged to expense in 1988 and 1987 approximated \$44,900 and \$40,400, respectively.

## 8. Management Fee Income

The Corporation has an agreement with the Pension Reserves Investment Trust ("PRIT"), a Massachusetts state employee pension trust, whereby the Corporation will provide investment advisory and management services relative to \$2 million of PRIT assets. The Corporation receives an annual management fee of \$60,000 for its services. In addition, the Corporation is entitled to receive 20% of all distributions resulting from the sale of investments after the original contribution to the investment fund of \$2 million has been returned to PRIT.

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